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THE Poultry and Egg SITUATION

BUREAU OF AGRICULTURAL ECONOMICS
UNITED STATES DEPARTMENT OF AGRICULTURE

PES-51 BAE MARCH 1941

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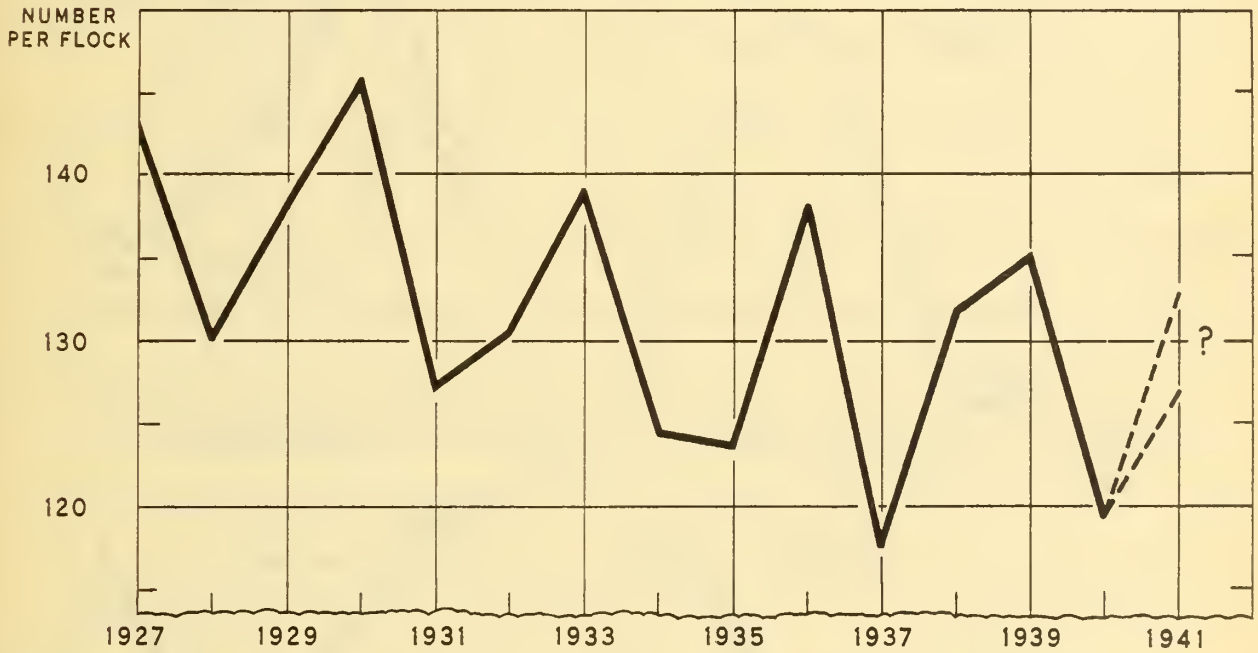

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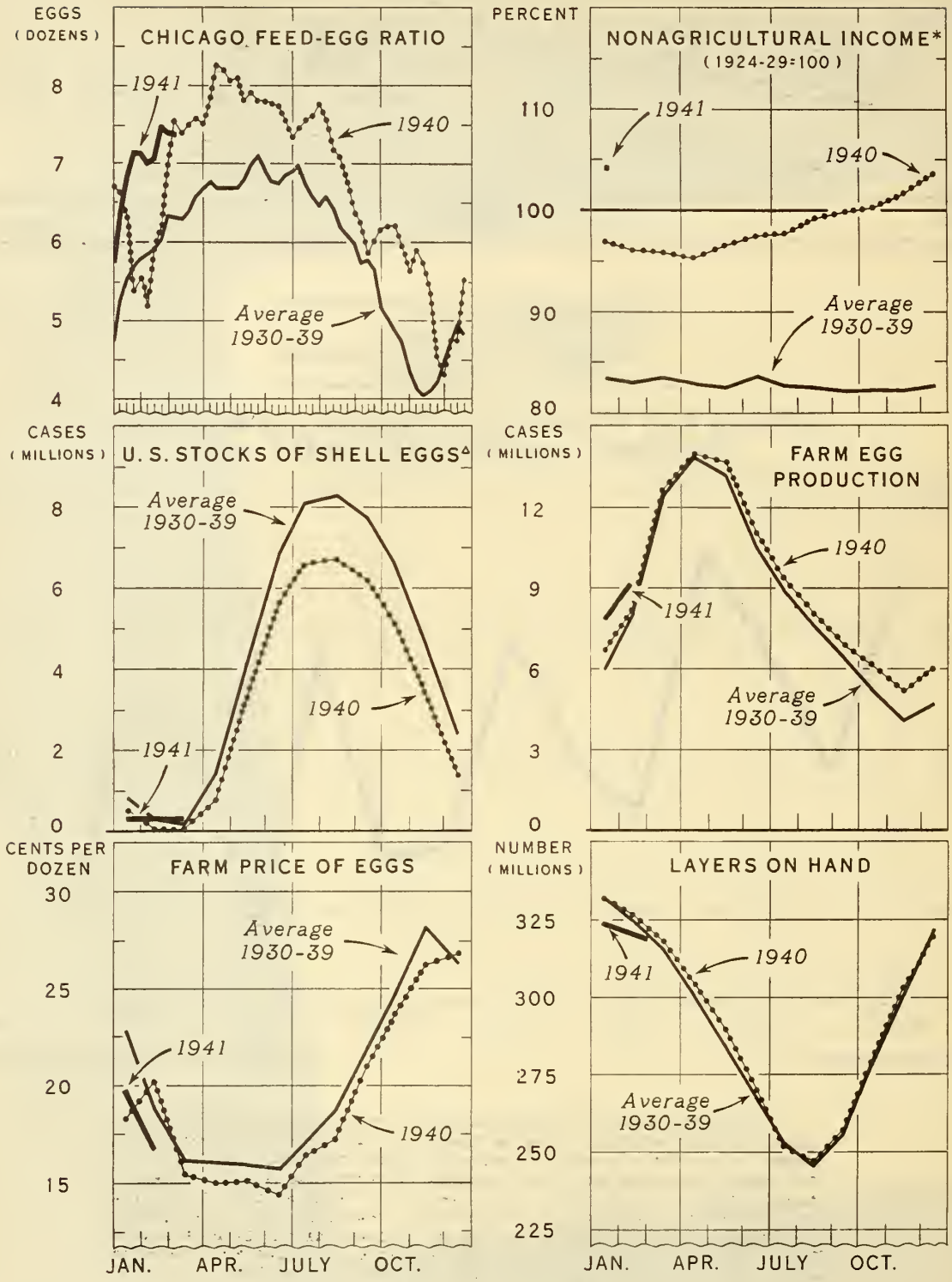
THE CHANGE FROM THE PRECEDING YEAR IN THE NUMBER OF CHICKS AND YOUNG CHICKENS PER FARM FLOCK ON JUNE 1 IS A GOOD INDICATION OF THE CHANGE IN THE TOTAL NUMBER OF CHICKENS RAISED ON FARMS. SINCE 1927, THE NUMBER OF CHICKS AND YOUNG CHICKENS ON FARMS JUNE 1 HAS FOLLOWED A FAIRLY REGULAR 3-YEAR CYCLE, INCREASING FOR 2 YEARS FOLLOWING A 1-YEAR DECLINE. WITH A 12-PERCENT DECLINE FROM A YEAR EARLIER IN THE NUMBER OF CHICKENS RAISED IN 1940 AND WITH THE FEED-EGG RATIO NOW MORE FAVORABLE THAN A YEAR AGO, IT IS EXPECTED THAT FROM 5 PERCENT TO 10 PERCENT MORE CHICKENS WILL BE RAISED ON FARMS IN 1941 THAN IN 1940.

THE EGG SITUATION AT A GLANCE



A. M. S. DATA, EXCEPT NONAGRICULTURAL INCOME * INDEX NUMBERS, ADJUSTED FOR SEASONAL VARIATION

△ FIRST OF THE MONTH, EXCLUDING S. M. A. HOLDINGS, BEGINNING APRIL 1, 1940

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FIGURE 1

THE POULTRY AND EGG SITUATION

Summary

From 5 to 10 percent more chickens are expected to be raised on farms in 1941 than in 1940, and a further expansion of the commercial broiler industry is in prospect. Commercial broiler production in January and February of this year appears to have been the largest on record for those months. The shift from home to commercial hatching seems to be continuing. Farmers' spring intentions indicate that 9 percent more chicks will be purchased in 1941 than in 1940.

Supplies of turkey meat for 1941 may be about the same as in 1940. Farmers' February 1 intentions indicate that about 3 percent fewer poults will be started this year than last. With normal weather conditions, however, the death loss may be enough less this year than last to result in the production of about the same number of turkeys. Storage stocks of turkeys on March 1 were about 5 million pounds smaller than a year earlier. With larger consumer incomes in prospect this year than last and consumers now more accustomed to eating turkeys throughout the year, the demand for turkeys in 1941 is expected to be stronger than in 1940, and prices received by farmers may average somewhat higher.

Egg production this spring and coming summer is now expected to be about the same as a year earlier. The number of layers on farms is 3 percent smaller, but egg production per layer is continuing at a much higher than average rate, partly because of the favorable weather through most of the winter and perhaps partly because of the large supplies of all feeds and the relatively lower prices for high protein feeds. Into-storage movements for both shell and frozen eggs began in early March. Storage demand for eggs is expected to be slightly stronger this season than last.

Primarily because of the stronger consumer demand this year than last, egg prices for 1941 are expected to average higher than in 1940. Wholesale egg prices declined sharply after the middle of February but more recently have improved somewhat and prices now are slightly higher than a year ago. With the seasonal decline in egg prices coming earlier now than a decade or more ago, the decline from mid-February to mid-March has been reduced. On March 17, the Federal Surplus Commodities Corporation announced that it will receive and consider offers for the sale of fresh shell eggs throughout the continental United States.

Receipts of live poultry at primary markets in the Middle West and receipts of dressed poultry at principal markets are continuing smaller than a year earlier. Reflecting these smaller farm marketings of live poultry and continued heavy consumption of poultry meat, the net out-of-storage movement of frozen poultry has been larger than a year earlier. The average price received by farmers for chickens in mid-February was about 2 cents higher than a year earlier and is expected to average higher this year than last because of the stronger consumer demand.

— March 20, 1941

FEED-EGG RATIO

From mid-January to about March 1 wholesale egg prices at Chicago were well below those of a year earlier and, although the cost of feed also was lower, the feed-egg ratio until March 1 was much less favorable to egg producers than during the corresponding period in 1940. For the week ended March 8, however, the price of eggs was slightly higher than a year earlier and the cost of feed continued lower, so that the feed-egg ratio was more favorable to producers than in the first week of March last year. The ratio is expected to average more favorable than a year earlier during the important egg-producing months this spring and coming summer.

The 61-cent loan available on corn throughout the 1940-41 marketing year will limit any price decline for corn, while the policy of the Government to make available for sale all corn owned by the Commodity Credit Corporation at 65 to 69 cents per bushel will tend to limit any advance. Oats and barley prices will be influenced by prospects for 1941 crops, but the extent of any

fluctuations will be limited on the downside by the corn loan program and on the upside by the large supplies of feed grains.

Supplies of all byproduct feeds are much above the average of recent years, and prices are 3-6 dollars per ton lower now than a year ago. The quantity of high-protein feeds available for domestic consumption has been increased by curtailment of exports to continental Europe.

Feed-egg ratio at Chicago

(Dozens of eggs required to buy 100 pounds of poultry ration)

Year	Week ending as of 1941											
	Jan.	Feb.		Mar.					Apr.		June	Sept.
	25	15	22	1	8	15	22	29	5	12	28	27
	Doz.	Doz.	Doz.	Doz.	Doz.	Doz.	Doz.	Doz.	Doz.	Doz.	Doz.	Doz.
Average 1930-39	5.70	5.91	6.06	6.32	6.32	6.30	6.40	6.60	6.69	6.77	6.86	5.65
1939	6.65	6.07	6.21	6.38	6.19	6.05	6.28	6.35	6.39	6.55	6.71	6.39
1940	5.38	5.93	6.23	6.98	7.56	7.37	7.51	7.59	7.49	7.84	7.57	6.02
1941	7.16	7.11	7.48	7.38	7.36	7.26						

HATCHINGS

The number of chicks produced by commercial hatcheries during January and February was about half again as large as the output a year earlier and about the same as the record high January-February output in 1939. Most of the chicks hatched during these months are used for producing broilers rather than for producing pullets for flock replacement purposes. Specialized broiler production is increasing in areas adjacent to many large cities as well as in important broiler areas. Broiler prices during the past several months have been much higher than a year earlier while feed prices have been about the same.

Beginning in early March, an increasing proportion of the chicks hatched are purchased by farmers for producing pullets. According to reports from crop correspondents, farmers intend to purchase or custom hatch about 9 percent more chicks this year than in 1940. The results of the survey by geographic divisions are shown in the following table. In addition

Intended purchases of baby chicks, 1941 as a percentage of 1940 1/

Geographic area	Number of producers reporting	Intended purchases as a percentage of 1940
	Number	Percent
New England	404	110
Middle Atlantic	1,715	107
East North Central	3,956	103
West North Central	6,442	106
South Atlantic	3,184	112
East South Central	2,431	115
West South Central	2,982	123
Rocky Mountain	1,608	115
Pacific Coast	1,339	116
United States	24,061	109

1/ Including custom-hatched chicks.

to chicks purchased from hatcheries, farmers home hatch a considerable portion of the total number of chickens raised. Although the number hatched at home has been declining each year, it amounted in 1940 to more than one-fourth of the chickens raised on farms. If the downward trend in home hatching continues this year, it will partly offset any increase in chick purchases. If the indicated increase of 9 percent in purchases from hatcheries materializes, the increase in the total number of chickens raised will be less than 9 percent because of the probability of a further decrease in home hatchings this year.

On the basis of the relation of the change from a year earlier in the October-March Chicago feed-egg ratio to the change in the number of chickens on farms the following June 1, only a slight increase in the number of chickens raised is indicated for this year. However, in view of the large decline in the number of chickens raised last year and the more favorable feed-egg ratio now than a year earlier, the number of chickens raised on farms may be from 5 to 10 percent larger this year than last. Commercial hatchery output may increase by a greater percentage since farmers probably will buy a larger proportion of their chicks from hatcheries this year than last. Chicken meat production also may increase by a greater percentage than the number of chickens raised because of the probable continued expansion in specialized broiler production.

EGG SITUATION

Egg production

The number of layers on farms during February was about 3 percent smaller than a year earlier. But the rate of lay per hen to date this year has averaged much higher than a year earlier, and total egg production during January and February was 14 percent larger than in the corresponding months of 1940 and the largest on record for those months. Egg production during the spring and coming summer is now expected to be about the same as a year earlier.

The decline in numbers of layers on farms during the next few months probably will be about the same as a year earlier, or a little less. But, in the late summer, sales of fowls by farmers may increase considerably to make room for the larger numbers of pullets that will result from the expected larger hatch this year than last.

Number of layers on farms, United States

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	Mil.	Mil.	Mil.	Mil.	Mil.	Mil.	Mil.	Mil.	Mil.	Mil.	Mil.	Mil.
Average: 1930-39	332	325	315	301	284	267	253	246	256	278	300	322
1938	307	301	292	278	262	248	236	234	245	269	293	314
1939	322	316	306	292	276	260	246	242	253	279	305	326
1940	332	327	318	304	289	270	252	247	257	279	303	320
1941	324	318										

Average number of eggs produced per layer, United States

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Average 1930-39	6.6	8.9	14.3	16.7	16.8	14.2	12.7	11.2	8.9	6.8	5.0	5.2
1938	7.9	9.9	15.4	17.5	17.3	14.9	13.6	11.8	9.4	7.5	5.9	6.4
1939	8.0	9.7	14.9	17.0	17.0	14.6	13.2	11.7	9.3	7.4	6.0	6.8
1940	7.2	9.0	14.4	16.5	17.0	14.8	13.4	11.8	9.7	7.9	6.2	6.8
1941	8.7	10.3										

Total farm production of eggs, United States

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	Mil. cases	Mil. cases	Mil. cases	Mil. cases	Mil. cases	Mil. cases	Mil. cases	Mil. cases	Mil. cases	Mil. cases	Mil. cases	Mil. cases
Average 1930-39	6.0	8.0	12.5	13.9	13.2	10.5	8.9	7.6	6.4	5.2	4.1	4.7
1938	6.7	8.3	12.5	13.5	12.6	10.3	8.9	7.6	6.4	5.6	4.8	5.5
1939	7.2	8.5	12.6	13.8	13.0	10.6	9.1	7.8	6.5	5.7	5.1	6.1
1940	6.7	8.2	12.7	14.0	13.7	11.1	9.4	8.1	7.0	6.1	5.2	6.0
1941	7.9	9.1										

Egg storage

On the basis of data for the 26 markets, storage stocks of shell eggs apparently reached the seasonal low point during the week ended March 1. United States storage stocks of privately owned shell eggs on March 1 were about 200,000 cases larger than a year earlier. The Surplus Marketing Administration on that date owned 16,000 cases or 5 percent of the 298,000 cases of shell eggs in storage.

During the closing weeks of the out-of-storage season outmovements of frozen eggs were smaller than a year earlier and stocks on March 1 were a little larger than on March 1, 1940.

On the basis of the estimated storage margin for the storing season just ended, storage demand apparently will be slightly stronger this year than last. Data of storage margins published in the February issue of this report showed an estimated storage margin of 2.4 cents for the 1940-41 season compared with less than a tenth of a cent for the preceding season.

Eggs: Storage stocks in the United States and storage movement at 26 markets

Year	United States stocks Feb. 1	United States stocks Mar. 1	Storage movement, week ending as of 1941 Feb. 22	Mar. 1	Mar. 8	Mar. 15	Mar. 22	Mar. 29	Apr. 5
	1,000 cases	1,000 cases	1,000 cases	1,000 cases	1,000 cases	1,000 cases	1,000 cases	1,000 cases	1,000 cases
Shell									
average:									
1930-39	278	182	-19	17	83	146	203	275	341
1939	136	165	8	29	68	85	149	215	266
1940	57	81	7	41	102	84	81	184	253
1941	1/272	1/ 282	9	- 7	55	101			
Frozen									
Average:									
1930-39	1,674	1,453	---	---	---	---	---	---	---
1939	1,438	1,271	-11	1	4	33	54	92	93
1940	1,607	1,088	-65	-98	-38	-21	27	42	91
1941	1,538	2/1,289	-47	-17	- 6	27			

1/ Excludes Surplus Marketing Administration holdings as follows: Feb. 1, 25,000 cases; Mar. 1, 16,000 cases. 2/ Preliminary.

Egg prices

The average price received by farmers for eggs declined about seasonally from mid-January to mid-February in contrast to the contra-seasonal increase between those dates in 1940. Wholesale egg prices declined sharply after the middle of February but more recently have increased slightly and now are a little higher than a year ago. Prior to about a decade ago egg prices reached a seasonal peak in December. But with increased production in the winter months the seasonal variation has been reduced and now the annual peak in egg prices usually comes in November - about a month earlier than formerly. Because of this shift in the seasonal peak, the decline in egg prices from mid-February to mid-March has been reduced.

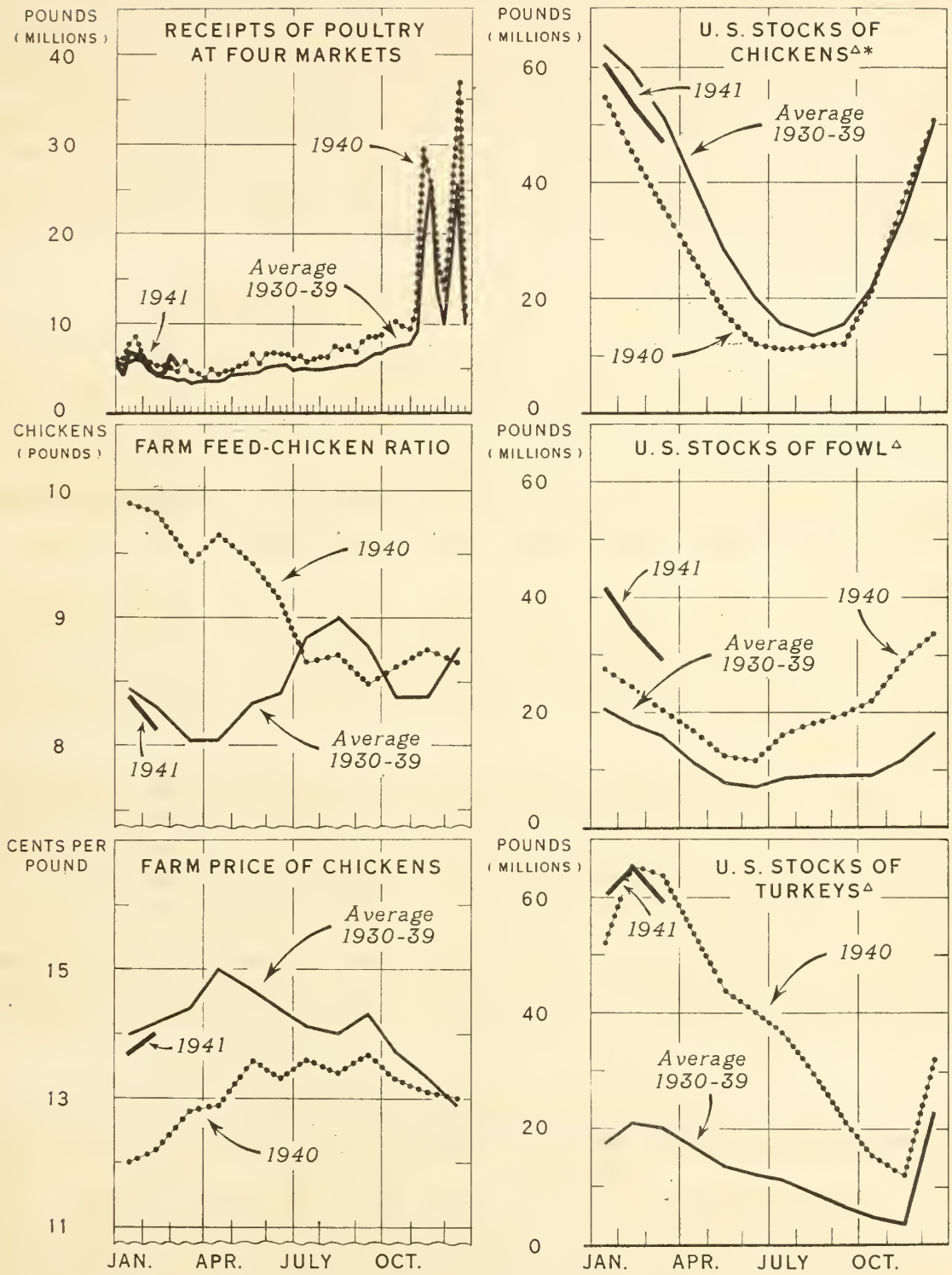
Primarily because of the stronger consumer demand this year than last egg prices for 1941 are expected to average higher than in 1940. Egg prices in the spring months will be supported to some extent by the indicated slightly stronger storage demand this year than last.

On March 17 the Federal Surplus Marketing Administration announced that it will receive and consider bids for the sale of fresh shell eggs throughout the continental United States.

Price per dozen received by farmers for eggs, United States

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
Average:												
1930-39	22.8	18.8	16.1	16.0	15.9	15.7	17.0	18.7	21.9	24.7	28.2	26.3
1938	21.6	16.4	16.2	15.0	17.6	18.2	19.9	21.0	24.9	27.1	29.0	27.9
1939	18.8	16.7	16.0	15.5	15.2	14.9	16.5	17.5	20.6	22.9	25.8	20.5
1940	18.3	20.2	15.4	15.0	15.1	14.4	16.4	17.2	21.0	23.7	26.2	26.8
1941	19.7	16.8										

THE POULTRY SITUATION AT A GLANCE



A. M. S. DATA △ FIRST OF THE MONTH * INCLUDES BROILERS, FRYERS AND ROASTERS

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FIGURE 2

POULTRY SITUATION

Poultry marketings

Receipts of dressed poultry at principal markets during the first 2-1/2 months of this year were smaller than in the same period last year. Receipts during the next few months, however, are expected to average about the same as those a year earlier, mostly because of intermarket movements of frozen poultry. Receipts of live poultry at midwestern primary markets have averaged smaller than a year earlier so far in 1941 and are not expected to exceed those of 1940 before the effects of this year's prospective larger hatch begin to show up.

Receipts of dressed poultry at four markets
(New York, Chicago, Philadelphia, Boston)

Year	Week ending as of 1941									
	Jan.	Feb.				Mar.			May	July
	25	15	22	1	8	15	22	29	31	26
	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds
Average: 1930-39	6,009	4,421	4,024	4,023	3,703	3,853	3,425	3,608	4,615	4,880
1939	6,020	3,685	3,585	4,066	3,528	3,937	4,308	3,868	5,668	6,948
1940	8,628	5,168	5,150	4,684	4,549	5,747	4,713	4,395	5,522	6,079
1941	6,461	4,297	4,486	4,849	4,534	4,404				

Poultry storage

Reflecting smaller farm marketings and continued heavy consumption of poultry meat, the total net out-of-storage movement of frozen poultry during January and February was about double that of a year earlier. This was due mostly to larger net withdrawals of turkeys and fowls this year than last. Nevertheless total storage stocks of all poultry on March 1 were about 13 percent larger than on March 1, 1940. Stocks of fowls were 43 percent larger than a year earlier, stocks of roasters 36 percent larger, and stocks of fryers 61 percent larger, whereas stocks of broilers were slightly smaller and stocks of turkeys were 7 percent smaller than on March 1, 1940.

Poultry: Storage stocks in the United States
and storage movement at 26 markets

Year	United States stocks		Out-of-storage movement, week ending as of 1941						
			Feb.	Mar.					Apr.
	Feb. 1	Mar. 1	22	1	8	15	22	29	5
	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds
Average: 1930-39	123,248	108,238	3,034	3,469	3,707	4,325	4,903	4,402	4,669
1939	133,531	116,229	2,928	3,681	3,443	4,216	4,313	4,520	4,692
1940	166,962	144,759	5,742	6,030	5,581	6,090	5,099	4,594	5,158
1941	191,410	1/163,347	7,598	5,332	6,095	6,174			

1/ Preliminary.

Chicken prices

The average price received by farmers for chickens increased about seasonally from mid-January to mid-February and in the latter month was nearly 2 cents higher than a year earlier, but about one-fourth of a cent below the 1930-39 average for that date. Chicken prices are expected to average higher in 1941 than in 1940 because of larger consumer incomes, 10 to 15 percent smaller supplies of pork, and the prospective smaller supplies of poultry meat for the first half of the year. The effects on prices of larger poultry meat supplies in the latter half of the year, resulting from the prospective larger hatch this year than last, are expected to be more than offset by larger consumer incomes.

Price per pound received by farmers for chickens, United States

Year	Jan. 15	Feb. 15	Mar. 15	Apr. 15	May 15	June 15	July 15	Aug. 15	Sept. 15	Oct. 15	Nov. 15	Dec. 15
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
Average: 1930-39	14.0	14.2	14.4	15.0	14.7	14.4	14.1	14.0	14.3	13.7	13.3	12.9
1938	16.7	16.0	15.9	16.2	16.1	15.7	15.0	14.2	14.3	13.6	13.6	13.6
1939	14.0	14.2	14.3	14.4	13.9	13.4	13.7	13.0	13.6	12.7	12.4	11.7
1940	12.0	12.2	12.8	12.9	13.6	13.3	13.6	13.4	13.7	13.3	13.1	13.0
1941	13.7	14.0										

OUTLOOK FOR TURKEYS IN 1941

On the basis of farmers' reported intentions, turkey production in 1941 may be about the same as in 1940. Producers reported to the Agricultural Marketing Service that they intend to home hatch the same number of poults this year as last but to purchase about 5 percent fewer than in 1940. If these intentions are carried out, about 3 percent fewer poults will be started this year than were started in 1940. With normal weather conditions the death loss may be enough less this year than last to result in the production of about the same number of turkeys. Storage stocks of turkeys on March 1 were only slightly smaller than a year earlier. Thus total supplies of turkey meat for 1941 may not be greatly different from those in 1940.

Consumer demand during the 1941 turkey marketing season is expected to be stronger than a year earlier. Supplies of meats other than poultry are expected to be a little smaller this year than last because of the prospective 10 to 15 percent reduction in hog slaughter. Feed costs for turkeys may be about the same this year as in 1940. Thus the situation appears to be somewhat more favorable for producers than in early 1940. (The feed situation is discussed in detail with the feed-egg ratio in the first part of this issue).

Turkey hens on hand and poults intended to be started, 1941 as percentage of 1940

Geographic divisions	Number of producers reporting	As percentage of 1940			
		Turkey hens on hand	Poults to be bought from hatcheries 1/	Poults to be home hatched 2/	Total poults to be started
	Number	Percent	Percent	Percent	Percent
North Atlantic ...	728	73	102	103	102
East North Central	625	80	95	98	97
West North Central	1,714	84	98	96	97
South Atlantic ...	679	86	98	100	99
South Central	887	90	94	96	95
Western	1,191	86	86	107	96
United States ..	5,824	86	95	100	97

1/ Includes poults "custom hatched" for a fee from eggs supplied by the producer.
2/ Exclusive of poults being hatched by producers for sale as baby poults to other producers.

In 1939 about 33 million birds were produced, 25 percent more than in 1938 and 18 percent more than the previous record crop of 1936. Although the estimated number of turkeys on farms in September 1940 was 1 percent larger than in 1939, the number of the 1940 crop actually sold probably was slightly smaller than a year earlier as a result of the severe November storm which is estimated to have killed one and one-third million birds. Prices received by farmers for turkeys increased relative to a year earlier during 1940 and, for the important turkey marketing months, averaged about the same as in 1939. Feed costs during the 1940 turkey raising season also were about the same as a year earlier. Thus for those farmers who escaped having severe death losses or who had the death losses covered by insurance, the 1940 operations probably were about as profitable as in the previous year. Percentages of started poults lost during the growing season are shown in the following table for the past 4 years, by geographic divisions.

Young turkeys lost on farms as percentage of total number bought and home hatched, by geographic divisions, 1937-40

Geographic division	1937	1938	1939	1940
	Percent	Percent	Percent	Percent
North Atlantic	19	16	17	19
East North Central ...	22	21	20	19
West North Central ...	24	23	23	29
South Atlantic	32	31	35	28
South Central	36	38	38	31
Western	21	20	19	20
United States	27.0	26.3	26.0	25.9

Supply of turkey eggs for hatching

The estimated number of turkey breeder hens on farms February 1 was 14 percent smaller than a year earlier. The effects of this smaller number on the supply of turkey eggs for hatching may be largely offset, however, by a slightly higher average rate of lay per hen and a fuller utilization of the eggs this year than last. Weather conditions during the past 6 months have been more favorable than a year earlier for the proper development of turkey hens. In early 1940 a severe cold spell of several weeks during the egg-producing season affected most of the country east of the Rocky Mountains.

Storage stocks

The outlook for marketing the turkeys in storage is more favorable this year than last. Although stocks on March 1 were only 7 percent smaller than a year earlier (59 million pounds this year compared with 64 million on March 1, 1940), this year's storage supply of non-eviscerated turkeys is composed of a much larger proportion of birds weighing under 16 pounds. A survey as of February 1 indicated that of the non-eviscerated turkeys in storage 41 percent weighed 16 pounds and over and 59 percent weighed less than 16 pounds, while on February 1 last year these percentages were 65 and 35 respectively. On February 1 this year eviscerated turkeys made up about 13 percent of the number of turkeys in storage. The stronger consumer demand this year than last and the fact that people have become more accustomed to eating turkey throughout the year are additional favorable factors in this year's turkey storage situation. The quantity of turkey meat consumed during the period February to November in 1940, is the largest on record for the period.

Price per pound received by farmers for live turkeys, United States

Year	Jan. 15	Feb. 15	Mar. 15	Apr. 15	May 15	June 15	July 15	Aug. 15	Sept. 15	Oct. 15	Nov. 15	Dec. 15
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
Average: 1934-38	15.8	15.7	15.4	15.3	14.6	14.0	13.9	13.8	14.6	15.5	16.9	17.6
1938	17.5	17.7	17.2	17.0	16.4	15.6	15.7	15.0	16.0	16.5	17.1	18.4
1939	18.3	17.5	17.6	16.9	15.6	14.7	14.4	14.3	15.4	15.3	16.0	15.6
1940	14.2	14.0	13.7	13.5	13.2	12.9	12.9	13.4	14.3	14.7	15.5	15.9
1941	15.5	15.1										

DOMESTIC DEMAND

Conditions point to additional improvement in consumer demand for farm products during the next several months but the gains from now on are likely to be more gradual than during the last half of 1940. Industrial activity, employment, and consumer incomes have risen sharply during the past year and further rises are expected during the last half of the year as new defense plants come into production, but the increases in industrial production in 1941 probably will not be so marked as the gains in 1940.

Index numbers of nonagricultural income

(1924-29 = 100, adjusted for seasonal variation)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Average: 1930-39	83.4	83.1	83.4	82.9	82.4	83.6	82.7	82.5	82.1	82.3	82.3	82.7
1939	90.6	90.9	91.3	90.0	90.8	92.1	91.8	93.3	93.3	95.0	95.9	97.1
1940	96.9	96.2	95.9	95.3	96.4	97.4	97.8	99.1	99.9	100.3	101.7	103.7
1941	1/104.2											

1/ Preliminary.

DOWNWARD TREND IN COSTS OF EGG PRODUCTION

The trend in the cost of producing eggs has been definitely downward for 20 years. Lower feed costs per dozen eggs have been responsible for part of this decline, but some other costs also have fallen as farmers have become more efficient in production methods. Some costs are higher. A considerable share of the reduction has come from generally larger production per hen. The changes that have taken place in costs on some representative types of poultry enterprises are shown in figures 3 and 4.

The items of cost included in the estimates are feed, labor, depreciation and death loss, use of buildings, equipment and land, interest, taxes and miscellaneous costs. Since some of these items are long-term costs incurred by a poultry enterprise, the total cost shown in the charts is higher than the current cash cost.

The differences in the estimated costs for the various areas and types of production are largely due to differences in the prices of feed. The Pacific Coast has a lower feed price than the Northeastern States. The lower cost on the small commercial flocks of the Middle West, compared with the commercial flocks of the Northeast, reflects mainly the lower feed prices in the Corn Belt. Wages and some other costs items also are lower in the Middle West.

The average farm flock of Rocks or other heavy breed in the western Corn Belt has a lower cost than the commercial flocks of Leghorn or other light breed of the eastern Corn Belt despite a much lower egg production per hen in the western Corn Belt. The principal reason is that probably 25 percent of the feed for these small flocks is picked up by the flocks - feed that would otherwise be wasted. Also, there is little or no depreciation (except mortality) to charge against the flock, because a hen of the heavy breeds will bring nearly as much for meat after a year as when first put into the flock. Feed prices are also lower in the western part of the Corn Belt than in the eastern part, and more home-grown feed is used in the western area.

The differences in the area costs of egg production do not mean that egg production in areas with low costs, such as the Corn Belt, is more profitable than in areas with high costs, since there is a wide range in quality and prices of eggs. The farm flocks of the Middle West produce a large

EGGS: ESTIMATED COST OF PRODUCTION IN SPECIFIED AREAS, AND PRICE RECEIVED BY FARMERS IN THE UNITED STATES, 1910-40

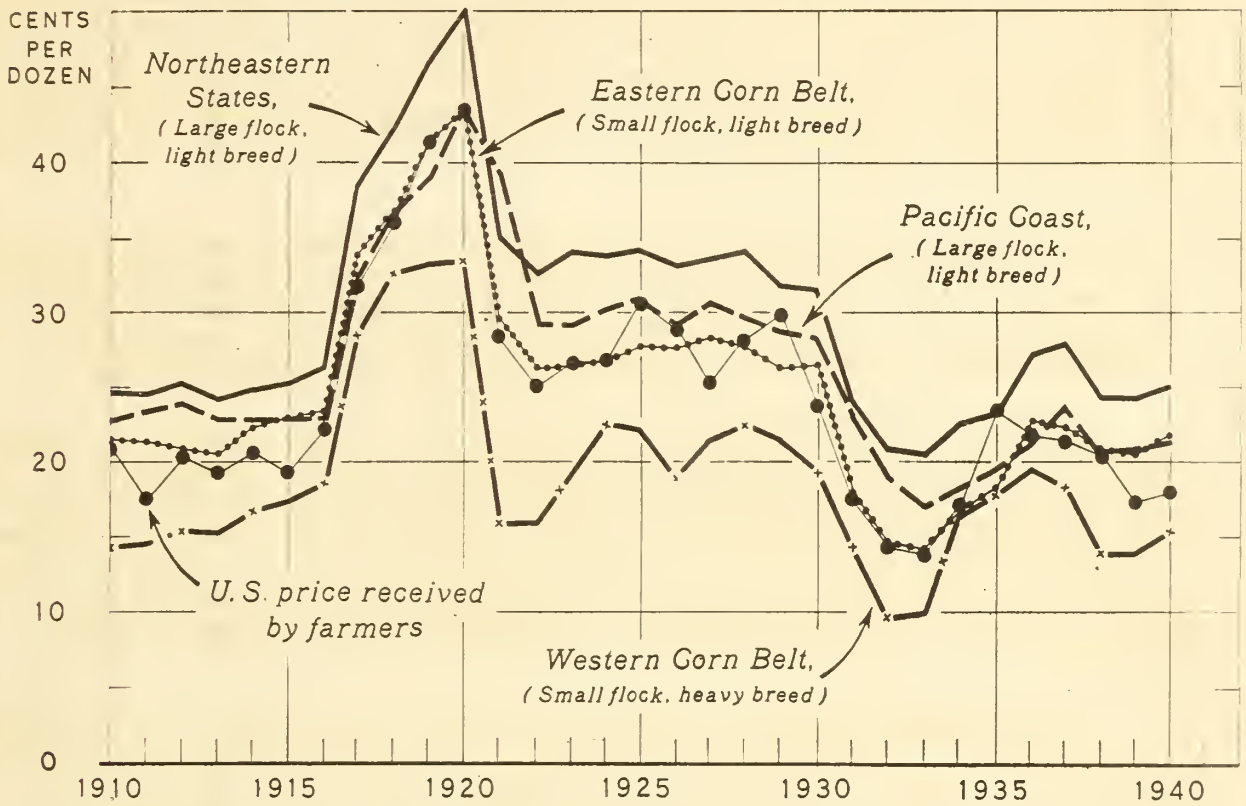

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FIGURE 3.- ESTIMATED COSTS FOR THE NORTHEASTERN STATES (SOLID LINE) WERE BASED ON A FLOCK OF FROM 1,500 TO 2,000 LEGHORN HENS AND PULLETS. THESE COSTS PROBABLY ARE REPRESENTATIVE OF THOSE OF LARGE SCALE PRODUCERS WHO ARE SOMEWHAT ABOVE THE AVERAGE OF THE AREA IN GENERAL EFFICIENCY.

FOR THE EASTERN CORN BELT (CHAIN OF DOTS) COSTS WERE ESTIMATED FOR A FLOCK OF ABOUT 300 LEGHORNS OR OTHERS OF LIGHT BREED. THESE COSTS ARE NOT REPRESENTATIVE OF THE AVERAGE OF FARM FLOCKS RAISED IN THAT AREA BUT MAY BE REPRESENTATIVE OF POULTRY SIDELINE ENTERPRISES THAT HAVE BEEN DEVELOPED TO A FAIRLY HIGH DEGREE OF EFFICIENCY.

COSTS FOR THE WESTERN CORN BELT (CROSS AND DASH LINE) WERE ESTIMATED FOR A FARM FLOCK OF FROM 100 TO 150 BIRDS OF A HEAVY BREED SUCH AS PLYMOUTH ROCK OR WHITE ROCK. SUCH A FLOCK MAY BE REPRESENTATIVE OF MOST FLOCKS IN THIS AREA WHERE POULTRY FARMING IS LESS SPECIALIZED THAN IN OTHER AREAS.

FOR THE PACIFIC COAST STATES (DASH LINE) COSTS WERE ESTIMATED FOR A FLOCK OF FROM 1,000 TO 1,500 LEGHORN HENS AND PULLETS. THESE COSTS PROBABLY ARE MORE NEARLY REPRESENTATIVE OF THOSE OF THE UPPER 50 PERCENT OF THE PRODUCERS THAN OF THE AVERAGE OF ALL FLOCKS IN THAT AREA.

THE AVERAGE ANNUAL PRICE RECEIVED BY FARMERS FOR EGGS IN THE UNITED STATES WAS INSERTED FOR COMPARATIVE PURPOSES, EVEN THOUGH IT IS NOT SPECIFICALLY APPLICABLE TO ANY ONE REGION.

percentage of their eggs during the spring and summer months, and the price received for them is lower than that received by the other types of producers considered.

The cost of production is generally higher in the Northeast than on the Pacific Coast. The Pacific Coast producers have a larger transportation charge for the eggs shipped East, probably amounting to 3 or 4 cents a dozen. Owing to the increase in population in California, more eggs are used at home and fewer shipped East than was true a few years ago. Consequently, those producers on the Pacific Coast that have to depend on the East for a market have to produce efficiently in order to meet the large cost of transportation not incurred by Eastern producers.

The trend in cost of production of eggs has been definitely downward since the middle 1920's for all four types of production. Significant among the changes in cost items during this period has been the lower level of feed prices in the last 5 years than in the middle 1920's. Feed prices in 1938 and 1939 were only about two thirds those in the middle 1920's.

Also, egg production per hen in commercial flocks has been 20 percent higher in recent years than it was 15 years ago. About 2 dozen more eggs are produced per hen in well-managed flocks in the Northeast now than 15 years ago. This lowers the cost per dozen, since many cost items do not increase with an increased rate of production. The quantity of feed consumed per bird increases but not as fast as egg production, for about the same amount of feed is required for body maintenance regardless of the number of eggs produced.

This increase in egg production per hen is partly due to an increased proportion of pullets in the laying flock. The percentage of pullets in the flock in the fall has increased in commercial flocks in the East. Since birds in the pullet year generally lay around 50 eggs more than they do in the second year as hens this increase in percentage of pullets is partly responsible for the increase in the average egg production per hen.

This shift to a high percentage of pullets has not been without its drawbacks. For several years, death losses among pullets increased. Apparently that difficulty is now being controlled by better care and sanitation, as death losses are now declining. Another drawback is that a flock of a light breed from which pullets are culled out heavily and few hens kept over has a high depreciation charge. If pullets costing $1.25 are culled out the first year and bring only 35 or 40 cents for meat, there is a cost of 85-90 cents each which is a heavy charge against the flock. If the bird is kept for 2 years this annual cost is cut about in half. This cost is much less with heavy breeds, as often a pullet or even a hen of a heavy breed will bring nearly as much for meat as it cost when put into the flock as a pullet.

Another drawback to flocks with a high percentage of pullets has been that the houses, other facilities, and labor are not fully utilized throughout the year. If one has a plant that will carry 1,500 birds in the fall and the number is gradually reduced by culling until only 500 are left at the end of the year, the average number carried during the year is 1,000. Thus, the facilities are only two thirds utilized. Some poultrymen are meeting this

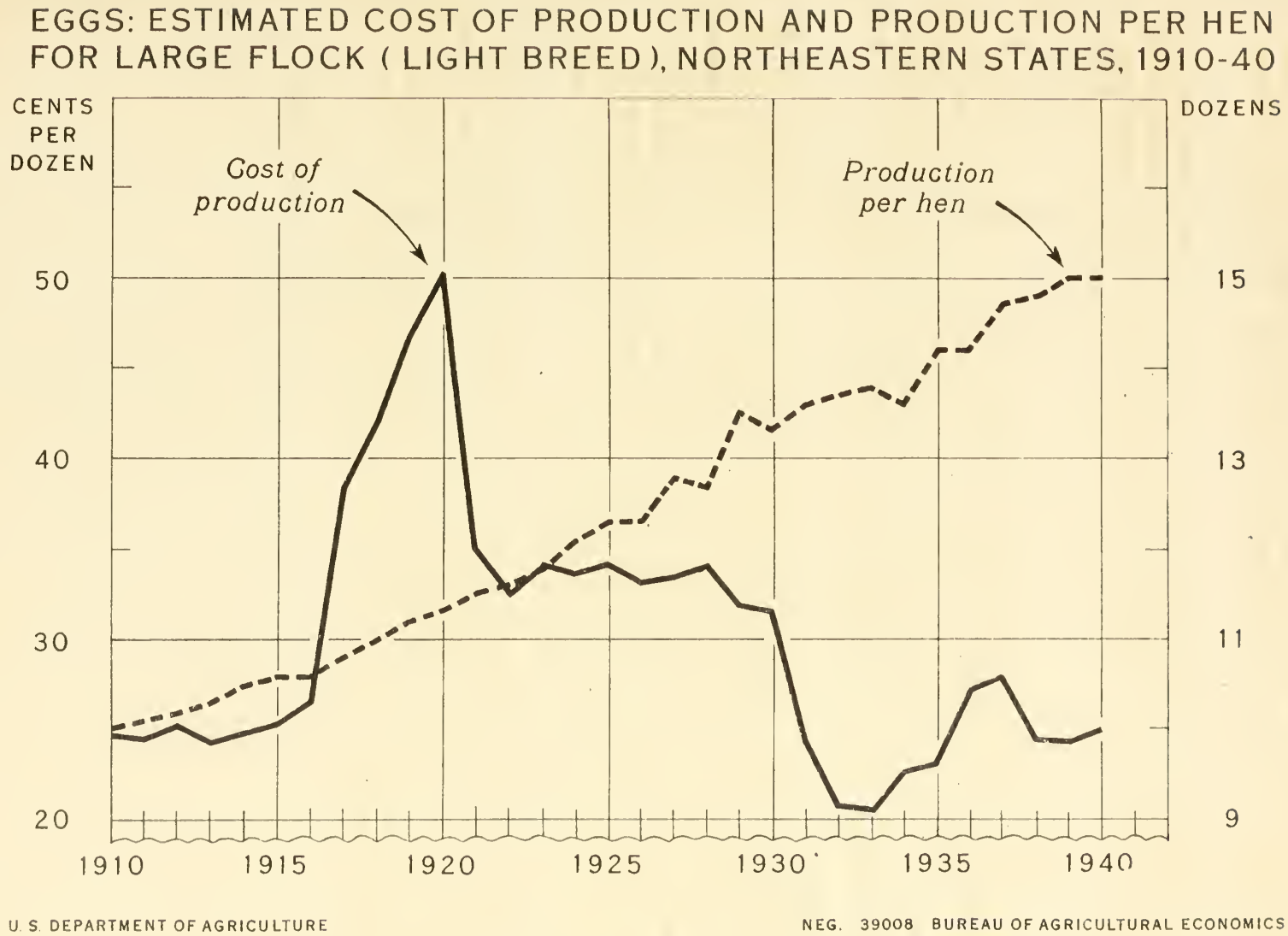

FIGURE 4.- THE LOWER COST OF PRODUCING EGGS NOW, COMPARED TO THE DECADE OF THE 1920'S, IS DUE MOSTLY TO LOWER FEED PRICES AND HIGHER AVERAGE RATES OF PRODUCTION PER HEN. FEED PRICES IN THE LAST 2 OR 3 YEARS WERE ABOUT ONE-THIRD LOWER THAN IN THE MIDDLE 1920'S. HIGHER RATES OF LAY RESULT IN GREATER EFFICIENCY AND LOWER COSTS PER DOZEN EGGS PRODUCED. ABOUT THE SAME AMOUNT OF FEED IS REQUIRED FOR BODY MAINTENANCE REGARDLESS OF THE NUMBER OF EGGS PRODUCED.

obviously high cost by growing pullets throughout the year and immediately replacing culled birds with pullets, thus keeping the flock near maximum size throughout the year.

In the minds of producers, however, the increased depreciation cost due to an increase in pullet flocks over the last 10 or 15 years apparently is more than offset by an increase in income resulting from a larger egg production, much of which comes during the fall months when egg prices are high.

An important cost item in the poultry enterprise is death loss. Between 15 and 20 percent of the number of pullets and hens started in the fall die during the following 12 months. A few years ago the rate was even higher. Apparently the trend in death loss is now downward, but it is still higher than it was 20 to 30 years ago. It is very high when compared with that of other species of livestock. The death loss of mature sheep in farm flocks is usually around 5-7 percent and of cattle 1-2 percent.

Changes affecting the income of poultry producers are not limited to changes in cost items. Changes in methods of production in one area or one type of producer affect other producers. The increase in the production of fall and winter eggs in commercial flocks has reduced the demand for storage eggs. This seems to have reacted on farm flocks of the Middle West that supply most of the eggs for storage. Average annual prices in Corn Belt States are relatively lower than they were 10-15 years ago, compared with those in Eastern States. This is partly due to the reduced storage demand, since the proportion of annual egg production sold in the spring and summer is larger in the Corn Belt than in other areas.

Numbers of layers kept on farms in the Corn Belt declined gradually from the late 1920's until the drought years, when they declined very sharply, especially in the West North Central States. Although these numbers have increased somewhat since the drought, they are still well below the levels of the early 1930's. Numbers of layers in the Eastern States, on the other hand, have increased somewhat since the late 1920's and early 1930's.

-- Ralph D. Jennings.

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